Access DB# 67672

CRFE

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Teena Gibbs Examiner #: 79523 Date: 5/30/02
Art Unit: 1635 Phone Number 306-3221 Serial Number: 09708786
Mail Box and Bldg/Room Location: Rm # 12A12 Results Format Preferred (circle): PAPER DISK E-MAIL
1/E12

If more than one search is submitted, please prioritize searches in order of need. 1 2 3

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please Search SEQ ID #1

- NO EST's please!

I didn't realize the printout was so bad! Let me know if you need it re-printed.

Cayn

308-4501/4506

Rec. 1

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****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: Helen Sadler	NA Sequence (#)	1	STN	
Searcher Phone #: 305-1681	AA Sequence (#)		Dialog	
Searcher Location: Scientific Lib	Structure (#)		Questel/Orbit	
Date Searcher Picked Up: 6/3/02	Bibliographic		Dr.Link	
Date Completed: 6/3/02	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	APS601
Clerical Prep Time: 1 min	Patent Family		WWW/Internet	
Online Time: 3 min	Other		Other (specify)	

PTO-1590 (8-01)

GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: May 31, 2002, 21:04:59 ; Search time 1851.86 Seconds
(without alignments)
226.006 Million cell updates/sec

Title: US-09-708-786-1
Perfect score: 20
Sequence: 1 ugacacctgttctcacucac 20

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 1797656 seqs, 10463268293 residues

Total number of hits satisfying chosen parameters: 3595312

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : GenEmbl:*
1: gb_ba:*
2: gb_htg:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query % Match	Length	DB	ID	Description
1	20	100.0	20	6	AX146647	AX146647 Sequence
c 2	20	100.0	364	9	HSA276888	AJ276888 Homo sapi
c 3	20	100.0	646	9	AF385323	AF385323 Homo sapi
c 4	20	100.0	681	6	A44505	A44505 Sequence 5
c 5	20	100.0	729	6	A61763	A61763 Sequence 3
c 6	20	100.0	852	6	A44504	A44504 Sequence 4
c 7	20	100.0	897	9	AF385322	AF385322 Homo sapi
c 8	20	100.0	1057	9	AF385325	AF385325 Homo sapi
c 9	20	100.0	1302	6	A44506	A44506 Sequence 6
c 10	20	100.0	1391	9	AF092845	AF092845 Homo sapi
c 11	20	100.0	1476	6	A61359	A61359 Sequence 1
c 12	20	100.0	1476	6	AX057138	AX057138 Sequence
c 13	20	100.0	2372	6	AR000256	AR000256 Sequence
c 14	20	100.0	2372	6	AR009781	AR009781 Sequence
c 15	20	100.0	2372	6	AR028963	AR028963 Sequence
c 16	20	100.0	2372	6	AR154584	AR154584 Sequence
c 17	20	100.0	2372	6	AX329941	AX329941 Sequence
c 18	20	100.0	2372	6	I11727	I11727 Sequence 1
c 19	20	100.0	2372	6	I12226	I12226 Sequence 1
c 20	20	100.0	2372	6	I21256	I21256 Sequence 1
c 21	20	100.0	2372	6	I25341	I25341 Sequence 2
c 22	20	100.0	2372	6	I36472	I36472 Sequence 2
c 23	20	100.0	2372	6	I40222	I40222 Sequence 2
c 24	20	100.0	2372	6	I79856	I79856 Sequence 2
c 25	20	100.0	2372	6	I86850	I86850 Sequence 2
c 26	20	100.0	2372	9	HSP53ASSG	Z12020 H.sapiens m
c 27	20	100.0	2372	9	HUMSP53A	M92424 Human p53-a
c 28	20	100.0	3130	9	BC009893	BC009893 Homo sapi
29	20	100.0	144450	2	AC026121	AC026121 Homo sapi
30	20	100.0	147235	2	AC016258	AC016258 Homo sapi
31	20	100.0	150579	9	AC025423	AC025423 Homo sapi
c 32	20	100.0	173926	2	AC078861	AC078861 Homo sapi
c 33	18.4	92.0	1476	4	AF121140	AF121140 Equus cab
c 34	17.4	87.0	96816	2	AC094912	AC094912 Rattus no
c 35	17.4	87.0	116069	2	AP000784	AP000784 Homo sapi
c 36	17.4	87.0	152578	2	AC025325	AC025325 Homo sapi
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c 38	17.4	87.0	155039	2	AC012548	AC012548 Homo sapi
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c 40	17.4	87.0	161734	2	AC103215	AC103215 Rattus no
c 41	17.4	87.0	164125	9	AC018693	AC018693 Homo sapi
c 42	17.4	87.0	166949	2	AC093319	AC093319 Mus muscu
c 43	17.4	87.0	170967	9	AC005023	AC005023 Homo sapi
c 44	17.4	87.0	173526	9	AL160036	AL160036 Human DNA
c 45	17.4	87.0	176676	2	AC012234	AC012234 Homo sapi

ALIGNMENTS

RESULT 1
AX146647
LOCUS AX146647 20 bp DNA [illegible] PAT 31-MAY-2001
DEFINITION Sequence 1 from Patent WO0134093.
ACCESSION AX146647
VERSION AX146647.1 GI:14285040
KEYWORDS .
SOURCE synthetic construct.
ORGANISM synthetic construct
artificial sequence.
REFERENCE 1 (bases 1 to 20)
AUTHORS Agrawal,S.
TITLE Potentiation of prodrug efficacy
JOURNAL Patent: WO 0134093-A 1 17-MAY-2001;
HYBRIDON, INC. (US)
FEATURES Location/Qualifiers
source 1..20
/organism="synthetic construct"
/db_xref="taxon:32630"
/note="oligonucleotide sequence"
BASE COUNT 4 a 8 c 2 g 6 t
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          :||||||||||||||||:|||
Db      1 TGACACCTGTTCTCACTCAC 20


RESULT   2
HSA276888/c
LOCUS       HSA276888                364 bp    mRNA    linear   PRI 30-MAY-2001
DEFINITION  Homo sapiens non-productive mRNA for p53-binding protein,
            alternatively spliced variant DS2 (MDM2 gene).
ACCESSION   AJ276888
VERSION     AJ276888.1  GI:7327962
KEYWORDS    alternative splicing; DS2; mdm2 gene; p53-binding.
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 364)
  AUTHORS   Bartel,F., Meye,A., Wurl,P., Kappler,M., Bache,M.,
            Lautenschlager,C., Grunbaum,U., Schmidt,H. and Taubert,H.
  TITLE     Amplification of the MDM2 gene, but not expression of splice
            variants of MDM2 MRNA, is associated with prognosis in soft tissue
            sarcoma
  JOURNAL   Int. J. Cancer 95 (3), 168-175 (2001)
  MEDLINE   21203670
REFERENCE   2  (bases 1 to 364)
  AUTHORS   Bartel,F.
  TITLE     Direct Submission
  JOURNAL   Submitted (22-MAR-2000) Bartel F., Institute for Pathology,
            University of Halle, Faculty of Medicine, Magdeburger St. 14, 06097
            Halle, GERMANY
FEATURES             Location/Qualifiers
     source          1. .364
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                     /db_xref="taxon:9606"
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                     /note="alternatively spliced isoform DS2"
     gene            1. .364
                     /gene="MDM2"
     CDS             1. .364
                     /gene="MDM2"
                     /standard_name="human homolog of mouse double minute 2"
                     /note="alternatively spliced isoform DS2"
                     /codon_start=1
                     /pseudo
                     /product="p53-binding protein"
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ORIGIN


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  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||||:|||
Db    249 TGACACCTGTTCTCACTCAC 230


RESULT   3
AF385323/c
LOCUS       AF385323                 646 bp    mRNA    linear   PRI 11-OCT-2001
DEFINITION  Homo sapiens MDM2 variant FB26 (MDM2) mRNA, complete cds,
            alternatively spliced.
ACCESSION   AF385323
VERSION     AF385323.1  GI:16033442
KEYWORDS    .
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 646)
  AUTHORS   Bartel,F., Taylor,A.C., Taubert,H. and Wurl,P.
  TITLE     Novel mdm2 splice variants identified in pediatric rhabdomyosarcoma
            tumors and cell lines
  JOURNAL   Unpublished
REFERENCE   2  (bases 1 to 646)
  AUTHORS   Bartel,F., Taylor,A.C., Taubert,H. and Wurl,P.
  TITLE     Direct Submission
  JOURNAL   Submitted (24-MAY-2001) Molecular Pharmacology, St. Jude Children's
            Research Hospital, 332 N. Lauderdale, Memphis, TN 38105, USA
FEATURES             Location/Qualifiers
     source          1. .646
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                     /db_xref="taxon:9606"
                     /tissue_type="rhabdomyosarcoma cell line"
     gene            1. .646
                     /gene="MDM2"
     CDS             1. .588
                     /gene="MDM2"
                     /note="alternatively spliced"
                     /codon_start=1
                     /product="MDM2 variant FB26"
                     /protein_id="AAL13243.1"
                     /db_xref="GI:16033443"
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                     RRRAISETEENSDELSGERQRKRHKSDSKEAKEFE"
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ORIGIN


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  Best Local Similarity   90.0%;  Pred. No. 2;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||||:|||
Db    383 TGACACCTGTTCTCACTCAC 364


RESULT   4
A44505/c
LOCUS       A44505                   681 bp    DNA     linear   PAT 07-MAR-
DEFINITION  Sequence 5 from Patent WO9514233.
ACCESSION   A44505
VERSION     A44505.1  GI:2299323
KEYWORDS    .
SOURCE      unidentified.
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 681)
  AUTHORS   Zentgraf,H., Klein,R., Frey,M. and Metzger,J.
  TITLE     METHOD OF IDENTIFYING HDM-2-SPECIFIC [illegible]
  JOURNAL   Patent: WO 9514233-A 5 26-MAY-1995;
            DEUTSCHES KREBSFORSCH (DE)
COMMENT     Other publication DE 4339533 950614
            Other publication DE 4345249 950523;
FEATURES             Location/Qualifiers
     source          1. .681
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                     /db_xref="taxon:32644"
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ORIGIN


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  Best Local Similarity   90.0%;  Pred. No. 2;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;
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Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||:|||
Db    212 TGACACCTGTTCTCACTCAC 193


RESULT   5
A61763/c
LOCUS       A61763                   729 bp    DNA     linear   PAT 09-MAR-1998
DEFINITION  Sequence 3 from Patent WO9711367.
ACCESSION   A61763
VERSION     A61763.1  GI:3715951
KEYWORDS    .
SOURCE      unidentified.
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 729)
  AUTHORS   Chene,P. and Hochkeppel,H.
  TITLE     ASSAY FOR IDENTIFYING INHIBITORS OF THE INTERACTION BETWEEN
            PROTEINS p53 AND dm2
  JOURNAL   Patent: WO 9711367-A 3 27-MAR-1997;
            CIBA GEIGY AG (CH)
FEATURES             Location/Qualifiers
     source          1. .729
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                     /db_xref="taxon:32644"
     CDS             84. .650
                     /codon_start=1
                     /product="N-TERMINAL 188 AMINO ACIDS OF HUMAN DOUBLE
                     MINUTE PROTEIN 2"
                     /protein_id="CAA03593.1"
                     /db_xref="GI:3715952"
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                     IYRNLVVVNQQESSDSGTSVSENRCHLEGGSDQKDLVQELQEEKPSSSHLVSRPSTSS
                     RRRAISETEENSDELSGERQRKRHKSDS"
BASE COUNT      219 a    149 c    168 g    193 t
ORIGIN


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  Best Local Similarity   90.0%;  Pred. No. 2;
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Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||:|||
Db    466 TGACACCTGTTCTCACTCAC 447


RESULT   6
A44504/c
LOCUS       A44504                   852 bp    DNA     linear   PAT 07-MAR-1997
DEFINITION  Sequence 4 from Patent WO9514233.
ACCESSION   A44504
VERSION     A44504.1  GI:2299322
KEYWORDS    .
SOURCE      unidentified.
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 852)
  AUTHORS   Zentgraf,H., Klein,R., Frey,M. and Martens,R.
  TITLE     METHOD OF IDENTIFYING HDM-2-SPECIFIC ANTIBODIES
  JOURNAL   Patent: WO 9514233-A 4 26-MAY-1995;
            DEUTSCHES KREBSFORSCH (DE)
COMMENT     Other publication DE 4339533 950614
            Other publication DE 4345249 950524.
FEATURES             Location/Qualifiers
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Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||:|||
Db    383 TGACACCTGTTCTCACTCAC 364


RESULT   7
AF385322/c
LOCUS       AF385322                 897 bp                    PRI 11-OCT-2001
DEFINITION  Homo sapiens MDM2 variant FB25 (MDM2 gene, partial cds,
            alternatively spliced.
ACCESSION   AF385322
VERSION     AF385322.1  GI:16033439
KEYWORDS    .
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 897)
  AUTHORS   Bartel,F., Taylor,A.C., Taubert,H. and Schmidt,H.
  TITLE     Novel mdm2 splice variants identified in rhabdomyosarcoma
            tumors and cell lines
  JOURNAL   Unpublished
REFERENCE   2  (bases 1 to 897)
  AUTHORS   Bartel,F., Taylor,A.C., Taubert,H.
  TITLE     Direct Submission
  JOURNAL   Submitted (24-MAY-2001) Molecular Pathology, St. Jude Children's
            Research Hospital, 332 N. Lauderdale, Memphis, TN 38105, USA
FEATURES             Location/Qualifiers
     source          1. .897
                     /organism="Homo sapiens"
                     /db_xref="taxon:9606"
                     /tissue_type="rhabdomyosarcoma"
     gene            1. .897
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     CDS             1. .183
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                     /codon_start=1
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                     /db_xref="GI:16033440"
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Db    199 TGACACCTGTTCTCACTCAC 180


RESULT   8
AF385325/c
LOCUS       AF385325                1057 bp                    PRI 11-OCT-2001
DEFINITION  Homo sapiens MDM2 variant FB29 (MDM2 gene, complete cds,
            alternatively spliced.
ACCESSION   AF385325
VERSION     AF385325.1  GI:16033447
KEYWORDS    .
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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REFERENCE   1  (bases 1 to 1057)
  AUTHORS   Bartel,F., Taylor,A.C., Taubert,H. and Harris,L.C.
  TITLE     Novel mdm2 splice variants identified in pediatric rhabdomyosarcoma
            tumors and cell lines
  JOURNAL   Unpublished
REFERENCE   2  (bases 1 to 1057)
  AUTHORS   Bartel,F., Taylor,A.C., Taubert,H. and Harris,L.C.
  TITLE     Direct Submission
  JOURNAL   Submitted (24-MAY-2001) Molecular Pharmacology, St. Jude Children's
            Research Hospital, 332 N. Lauderdale, Memphis, TN 38105, USA
FEATURES             Location/Qualifiers
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     CDS             1. .255
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Db    125 TGACACCTGTTCTCACTCAC 106


RESULT   9
A44506/c
LOCUS       A44506                 1302 bp    DNA     linear   PAT 07-MAR-1997
DEFINITION  Sequence 6 from Patent WO9514233.
ACCESSION   A44506
VERSION     A44506.1  GI:2299324
KEYWORDS    .
SOURCE      unidentified.
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 1302)
  AUTHORS   Zentgraf,H., Klein,R., Frey,M. and Martens,R.
  TITLE     METHOD OF IDENTIFYING HDM-2-SPECIFIC ANTIBODIES
  JOURNAL   Patent: WO 9514233-A 6 26-MAY-1995;
            DEUTSCHES KREBSFORSCH (DE)
COMMENT     Other publication DE 4339533 950614
            Other publication DE 4345249 950524.
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Db    212 TGACACCTGTTCTCACTCAC 193


RESULT  10
AF092845/c
LOCUS       AF092845               1391 bp    mRNA    linear   PRI 11-DEC-2001
DEFINITION  Homo sapiens MDM2 protein (MDM2) mRNA, alternatively spliced,
            complete cds.
ACCESSION   AF092845
VERSION     AF092845.1  GI:17483725
KEYWORDS    .
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 1391)
  AUTHORS   Tamborini,E., Della Torre,G., Lavarino,C., Azzarelli,A.,
            Carpinelli,P., Pierotti,M.A. and Pilotti,S.
  TITLE     Analysis of the molecular species generated by MDM2 gene
            amplification in liposarcomas
  JOURNAL   Int. J. Cancer 92 (6), 790-796 (2001)
  MEDLINE   21248713
   PUBMED   11351297
REFERENCE   2  (bases 1 to 1391)
  AUTHORS   Tamborini,E., Pierotti,M.A., Della Torre,G., Lavarino,C., Buto',S.,
            Delia,D. and Pilotti,S.
  TITLE     Direct Submission
  JOURNAL   Submitted (18-SEP-1998) Dipartimento di Patologia Patologica,
            Istituo Nazionale per lo Studio e la Cura dei Tumori, Via Venezian
            1, Milan, Mi 20133, Italy
FEATURES             Location/Qualifiers
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                     /db_xref="GI:17483726"
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                     DKITQASQSQESEDYSQPSTSSSIIYSSQEDVKEFEKEETQDKEESVESSLPL
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BASE COUNT     467 a    250 c    320 g    354 t
ORIGIN


  Query Match           100.0%;  Score 20;  DB 9;  Length 1391;
  Best Local Similarity  90.0%;  Pred. No. 1.9;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
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Db    280 TGACACCTGTTCTCACTCAC 261


RESULT  11
A61359/c
LOCUS       A61359                 1476 bp    DNA     linear   PAT 09-MAR-1998
DEFINITION  Sequence 1 from Patent WO9709343
ACCESSION   A61359
VERSION     A61359.1  GI:3715769
KEYWORDS    .
SOURCE      unidentified.
  ORGANISM  unidentified
            unclassified.
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REFERENCE   1  (bases 1 to 1476)
  AUTHORS   Tocque,B., Dubs-Poterszman,M. and Wasylyk,B.
  TITLE     ANTAGONISTS OF THE ONCOGENIC ACTIVITY OF THE PROTEIN MDM2, AND USE
            THEREOF IN THE TREATMENT OF CANCERS
  JOURNAL   Patent: WO 9709343-A 1 13-MAR-1997;
            RHONE POULENC RORER SA (FR)
COMMENT     Other publication FR 2738151 970307.
FEATURES             Location/Qualifiers
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                     /organism="unidentified"
                     /db_xref="taxon:32644"
     CDS             1. .1476
                     /note="unnamed protein product"
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                     DYSQPSTSSSIIYSSQEDVKEFEREETQDKEESVESSLPLNAIEPCVICQGRPKNGCI
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BASE COUNT      491 a    259 c    332 g    394 t
ORIGIN


  Query Match           100.0%;  Score 20;  DB 6;  Length 1476;
  Best Local Similarity  90.0%;  Pred. No. 1.9;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

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Db    383 TGACACCTGTTCTCACTCAC 364


RESULT  12
AX057138/c
LOCUS       AX057138               1476 bp    DNA     linear   PAT 17-JAN-2001
DEFINITION  Sequence 14 from Patent WO0075184.
ACCESSION   AX057138
VERSION     AX057138.1  GI:12309959
KEYWORDS    .
SOURCE      human.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 1476)
  AUTHORS   Zhang,H., Tsvetkov,L.M. and Kondo,T.
  TITLE     Modulation of protein levels using the scf complex
  JOURNAL   Patent: WO 0075184-A 14 14-DEC-2000;
            YALE UNIVERSITY (US)
FEATURES             Location/Qualifiers
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BASE COUNT      491 a    259 c    332 g    394 t
ORIGIN


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  Matches   18;  Conservative    2;  Mismatches [illegible]  0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
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Db    383 TGACACCTGTTCTCACTCAC 364


RESULT  13
AR000256/c
LOCUS       AR000256               2372 bp                    PAT 04-DEC-1998
DEFINITION  Sequence 2 from patent US 573633[illegible]
ACCESSION   AR000256
VERSION     AR000256.1  GI:3962787
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 2372)
  AUTHORS   Burrell,M., Hill,D.E., Kinzler,K.W[illegible]B.
  TITLE     Method of diagnosing Neoplastic dis[illegible]ing increased
            expression of human MDM2 protein
  JOURNAL   Patent: US 5736338-A 2 07-APR-19[illegible]
FEATURES             Location/Qualifiers
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ORIGIN


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Qy      1 ugacacctgttctcacucac 20
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Db    694 TGACACCTGTTCTCACTCAC 675


RESULT  14
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LOCUS       AR009781               2372 bp                    PAT 04-DEC-1998
DEFINITION  Sequence 2 from patent US 5756455.
ACCESSION   AR009781
VERSION     AR009781.1  GI:3968586
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 2372)
  AUTHORS   Kinzler,K.W. and Vogelstein,B.
  TITLE     Amplification of human MDM2 gene
  JOURNAL   Patent: US 5756455-A 2 26-MAY-19[illegible]
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     source          1. .2372
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ORIGIN


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Qy      1 ugacacctgttctcacucac 20
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Db    694 TGACACCTGTTCTCACTCAC 675
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RESULT 15
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LOCUS       AR028963               2372 bp    DNA     linear   PAT 29-SEP-1999
DEFINITION  Sequence 2 from patent US 5858976.
ACCESSION   AR028963
VERSION     AR028963.1  GI:5940936
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 2372)
  AUTHORS   Burrell,M., Hill,D.E., Kinzler,K.W. and Vogelstein,B.
  TITLE     Methods for inhibiting interaction of human MDM2 and p53
  JOURNAL   Patent: US 5858976-A 2 12-JAN-1999;
FEATURES             Location/Qualifiers
     source          1. .2372
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ORIGIN


  Query Match           100.0%;  Score 20;  DB 6;  Length 2372;
  Best Local Similarity  90.0%;  Pred. No. 1.9;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
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Db     694 TGACACCTGTTCTCACTCAC 675


Search completed: May 31, 2002, 22:43:53
Job time: 5934 sec
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GenCore version 4.5

OM nucleic - nucleic search, using sw model

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Title: US-09-708-786-1
Perfect score: 20
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Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 383533 seqs, 122816752 residues

Total number of hits satisfying chosen parameters: 767066

Minimum DB seq length: 0
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Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
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	2	20	100.0	20	3	US-09-073-567-36	Sequence 36, Appl
	3	20	100.0	20	3	US-09-073-567-47	Sequence 47, Appl
	4	20	100.0	73	3	US-09-073-567-49	Sequence 49, Appl
c	5	20	100.0	2372	1	US-07-903-103-1	Sequence 1, Appli
c	6	20	100.0	2372	1	US-08-044-619A-1	Sequence 1, Appli
c	7	20	100.0	2372	1	US-08-283-911-1	Sequence 1, Appli
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c	9	20	100.0	2372	1	US-08-390-546-2	Sequence 2, Appli
c	10	20	100.0	2372	1	US-08-390-479A-2	Sequence 2, Appli
c	11	20	100.0	2372	1	US-08-557-393-2	Sequence 2, Appli
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c	17	20	100.0	2372	4	US-09-280-805-1	Sequence 1, Appli
c	18	20	100.0	2372	4	US-09-048-810-1	Sequence 1, Appli
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	20	15.8	79.0	59065	4	US-09-813-817-3	Sequence 3, Appli
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	22	15.4	77.0	600	4	US-09-385-982-127	Sequence 127, App
	23	15.4	77.0	611	4	US-09-385-982-398	Sequence 398, App
	24	15.4	77.0	619	4	US-09-385-982-99	Sequence 99, Appl
	25	15.4	77.0	626	4	US-09-385-982-39	Sequence 39, Appl
	26	15.4	77.0	1039	1	US-08-458-084-9	Sequence 9, Appli
	27	15.4	77.0	1039	1	US-08-205-508-9	Sequence 9, Appli
	28	15.4	77.0	1039	2	US-08-482-1[illegible]	Sequence 6, Appli
	29	15.4	77.0	1039	5	PCT-US95-0[illegible]	Sequence 6, Appli
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c	33	15	75.0	20	3	US-09-073-567	Sequence 15, Appl
	34	15	75.0	20	3	US-09-073-567-[illegible]	Sequence 37, Appl
c	35	14.8	74.0	1493	4	US-09-376-781-[illegible]	Sequence 24, Appl
c	36	14.8	74.0	2000	4	US-09-376-781	Sequence 25, Appl
c	37	14.8	74.0	2000	4	US-09-376-7[illegible]	Sequence 30, Appl
	38	14.8	74.0	3116	4	US-09-362-83[illegible]	Sequence 10, Appl
c	39	14.4	72.0	30	2	US-08-852-806-[illegible]	Sequence 13, Appl
c	40	14.4	72.0	30	3	US-09-163-669-[illegible]	Sequence 13, Appl
	41	14.4	72.0	2445	4	US-09-298-367B	Sequence 9, Appli
c	42	14.4	72.0	3271	2	US-08-852-8[illegible]	Sequence 1, Appli
c	43	14.4	72.0	3271	3	US-09-163-669-[illegible]	Sequence 1, Appli
	44	14.4	72.0	8501	4	US-09-298-367B	Sequence 6, Appli
c	45	14.4	72.0	10607	1	US-08-078-090-[illegible]	Sequence 3, Appli

ALIGNMENTS

Filed May 6 98
Issued Jan 11 00

RESULT 1
US-09-073-567-14/c
; Sequence 14, Application US/09073567
; Patent No. 6013786
; GENERAL INFORMATION:
; APPLICANT: Jiandong Chen
; APPLICANT: Sudhir Agrawal
; APPLICANT: Ruiwen Zhang
; TITLE OF INVENTION: MDM2-SPECIFIC ANTISE[illegible]DES
; NUMBER OF SEQUENCES: 49
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: McDonnell Boehnen Hulbert [illegible]
; STREET: 300 South Wacker Drive, 32nd F[illegible]
; CITY: Chicago
; STATE: IL
; COUNTRY: United States of America
; ZIP: 60606
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Microsoft Word 97
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/073,567
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Greenfield, Michael S.
; REGISTRATION NUMBER: 37,147
; REFERENCE/DOCKET NUMBER: 98,057-A
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (312) 913-0001
; TELEFAX: (312) 913-0002
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 20 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: both
; TOPOLOGY: linear
; MOLECULE TYPE: nucleic acid
; HYPOTHETICAL: NO
; ANTI-SENSE: NO
US-09-073-567-14

Query Match 100.0%; Score 20; [illegible]
Best Local Similarity 90.0%; Pred. No. [illegible]
Matches 18; Conservative 2; Mismatches [illegible] 0; Gaps 0;

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RESULT   2
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; Sequence 36, Application US/09073567
; Patent No. 6013786
;  GENERAL INFORMATION:
;    APPLICANT:  Jiandong Chen
;    APPLICANT:  Sudhir Agrawal
;    APPLICANT:  Ruiwen Zhang
;    TITLE OF INVENTION:  MDM2-SPECIFIC ANTISENSE OLIGONUCLEOTIDES
;    NUMBER OF SEQUENCES:  49
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  McDonnell Boehnen Hulbert & Berghoff
;      STREET:  300 South Wacker Drive, 32nd Floor
;      CITY:  Chicago
;      STATE:  IL
;      COUNTRY:  United States of America
;      ZIP:  60606
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  Microsoft Word 97
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/073,567
;      FILING DATE:
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Greenfield, Michael S.
;      REGISTRATION NUMBER:  37,147
;      REFERENCE/DOCKET NUMBER:  98,057-A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (312) 913-0001
;      TELEFAX:  (312) 913-0002
;  INFORMATION FOR SEQ ID NO:  36:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  20 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  both
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  nucleic acid
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  YES
US-09-073-567-36


  Query Match             100.0%;  Score 20;  DB 3;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 0.14;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

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Db      1 TGACACCTGTTCTCACTCAC 20


RESULT   3
US-09-073-567-47
; Sequence 47, Application US/09073567
; Patent No. 6013786
;  GENERAL INFORMATION:
;    APPLICANT:  Jiandong Chen
;    APPLICANT:  Sudhir Agrawal
;    APPLICANT:  Ruiwen Zhang
;    TITLE OF INVENTION:  MDM2-SPECIFIC ANTISENSE OLIGONUCLEOTIDES
;    NUMBER OF SEQUENCES:  49
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  McDonnell Boehnen Hulbert & Berghoff
;      STREET:  300 South Wacker Drive, 32nd Floor
;      CITY:  Chicago
;      STATE:  IL
;      COUNTRY:  United States of America
;      ZIP:  60606
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
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;      SOFTWARE:  Microsoft Word 97
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/073,567
;      FILING DATE:
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Greenfield, Michael S.
;      REGISTRATION NUMBER:  37,147
;      REFERENCE/DOCKET NUMBER:  98,057-A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (312) 913-0001
;      TELEFAX:  (312) 913-0002
;  INFORMATION FOR SEQ ID NO:  47:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  20 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  both
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  nucleic acid
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  YES
US-09-073-567-47


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Db      1 UGACACCTGTTCTCACUCAC 20


RESULT   4
US-09-073-567-49
; Sequence 49, Application US/09073567
; Patent No. 6013786
;  GENERAL INFORMATION:
;    APPLICANT:  Jiandong Chen
;    APPLICANT:  Sudhir Agrawal
;    APPLICANT:  Ruiwen Zhang
;    TITLE OF INVENTION:  MDM2-SPECIFIC ANTISEN                  IDES
;    NUMBER OF SEQUENCES:  49
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  McDonnell Boehnen Hulbert &
;      STREET:  300 South Wacker Drive, 32nd
;      CITY:  Chicago
;      STATE:  IL
;      COUNTRY:  United States of America
;      ZIP:  60606
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  Microsoft Word 97
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/073,567
;      FILING DATE:
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Greenfield, Michael S.
;      REGISTRATION NUMBER:  37,147
;      REFERENCE/DOCKET NUMBER:  98,057-A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (312) 913-0001
;      TELEFAX:  (312) 913-0002
;  INFORMATION FOR SEQ ID NO:  49:
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;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  73 base pairs
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;      STRANDEDNESS:  both
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  nucleic acid
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  YES
US-09-073-567-49


  Query Match             100.0%;  Score 20;  DB 3;  Length 73;
  Best Local Similarity   90.0%;  Pred. No. 0.16;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
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Db     44 TGACACCTGTTCTCACTCAC 63


RESULT   5
US-07-903-103-1/c
; Sequence 1, Application US/07903103
; Patent No. 5411860
;  GENERAL INFORMATION:
;    APPLICANT:  VOGELSTEIN, BERT
;    APPLICANT:  KINZLER, KENNETH
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN MDM2 GENE IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BECKETT
;      STREET:  1001 G ST., N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001-4597
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/903,103
;      FILING DATE:  19920623
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/867.840
;      FILING DATE:  07-APR-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.40148
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-07-903-103-1


  Query Match             100.0%;  Score 20;  [illegible] 2372;
  Best Local Similarity   90.0%;  Pred. No. 0.[illegible]
  Matches   18;  Conservative    2;  Mismatches[illegible]  0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||||:|||
Db    694 TGACACCTGTTCTCACTCAC 675


RESULT   6
US-08-044-619A-1/c
; Sequence 1, Application US/08044619A
; Patent No. 5420263
;  GENERAL INFORMATION:
;    APPLICANT:  THE JOHNS HOPKINS UNIVERSITY
;    APPLICANT:  720 RUTLAND AVENUE, BALTIMORE, [illegible] USA
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN [illegible]
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BECKETT
;      STREET:  1001 G ST., N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001-4597
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Vers[illegible]
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/044,619A
;      FILING DATE:  07-APR-1993
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/903,103
;      FILING DATE:  23-JUN-1992
;      APPLICATION NUMBER:  US 07/867.840
;      FILING DATE:  07-APR-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.40148
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-044-619A-1


  Query Match             100.0%;  Score 20;  [illegible] 2372;
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  Best Local Similarity   90.0%;  Pred. No. 0.24;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||:|||
Db     694 TGACACCTGTTCTCACTCAC 675


RESULT   7
US-08-283-911-1/c
; Sequence 1, Application US/08283911
; Patent No. 5519118
;  GENERAL INFORMATION:
;    APPLICANT:  VOGELSTEIN, BERT
;    APPLICANT:  KINZLER, KENNETH
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN MDM2 GENE IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BECKETT
;      STREET:  1001 G ST., N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001-4597
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/283,911
;      FILING DATE:
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/903,103
;      FILING DATE:  23-JUN-1992
;      APPLICATION NUMBER:  US 07/867.840
;      FILING DATE:  07-APR-1992
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.40148
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-283-911-1


  Query Match             100.0%;  Score 20;  DB 1;  Length 2372;
  Best Local Similarity   90.0%;  Pred. No. 0.24;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||:|||
Db     694 TGACACCTGTTCTCACTCAC 675


RESULT   8
US-08-245-500A-2/c
; Sequence 2, Application US/08245500A
; Patent No. 5550023
;  GENERAL INFORMATION:
;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF H[illegible] IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BE[illegible]
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Ver[illegible]
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/245,500A
;      FILING DATE:  07-APR-1993
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.42798
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-245-500A-2


  Query Match             100.0%;  Score 20;  [illegible]372;
  Best Local Similarity   90.0%;  Pred. No. [illegible]
  Matches   18;  Conservative    2;  Mismatch[illegible]  0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||:|||
Db     694 TGACACCTGTTCTCACTCAC 675


RESULT   9
US-08-390-546-2/c
; Sequence 2, Application US/08390546
; Patent No. 5606044
;  GENERAL INFORMATION:
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;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN MDM2 GENE IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BECKETT
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/390,546
;      FILING DATE:  07-APR-1993
;      CLASSIFICATION:  536
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.42798
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-390-546-2


  Query Match           100.0%;  Score 20;  DB 1;  Length 2372;
  Best Local Similarity   90.0%;  Pred. No. 0.24;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||:|||
Db    694 TGACACCTGTTCTCACTCAC 675


RESULT  10
US-08-390-479A-2/c
; Sequence 2, Application US/08390479A
; Patent No. 5618921
;  GENERAL INFORMATION:
;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN MDM2 GENE IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER & WITCOFF, LTD.
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Ver
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/390,479A
;      FILING DATE:  02-FEB-1995
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.48992
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-390-479A-2


  Query Match           100.0%;  Score 20;  [illegible] 2372;
  Best Local Similarity   90.0%;  Pred. No. [illegible]
  Matches   18;  Conservative    2;  Mismatches [illegible]  0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||:|||
Db    694 TGACACCTGTTCTCACTCAC 675


RESULT  11
US-08-557-393-2/c
; Sequence 2, Application US/08557393
; Patent No. 5702903
;  GENERAL INFORMATION:
;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN [illegible] IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BECK[illegible]
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
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;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/557,393
;      FILING DATE:  13-NOV-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/245,500
;      FILING DATE:  18-MAY-1994
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.42798
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-557-393-2


  Query Match             100.0%;  Score 20;  DB 1;  Length 2372;
  Best Local Similarity   90.0%;  Pred. No. 0.24;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :|||||||||||||||:|||
Db    694 TGACACCTGTTCTCACTCAC 675


RESULT  12
US-08-390-516C-2/c
; Sequence 2, Application US/08390516C
; Patent No. 5708136
;  GENERAL INFORMATION:
;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN MDM2 GENE IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  9
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BECKETT
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/390,516C
;      FILING DATE:  07-APR-1993
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.42798
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-390-516C-2


  Query Match             100.0%;  Score 20;  [illegible]  2;
  Best Local Similarity   90.0%;  Pred. No. [illegible]
  Matches   18;  Conservative    2;  Mismatch[illegible]  0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :|||||||||||||||:|||
Db    694 TGACACCTGTTCTCACTCAC 675


RESULT  13
US-08-390-517A-2/c
; Sequence 2, Application US/08390517A
; Patent No. 5736338
;  GENERAL INFORMATION:
;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF H[illegible]
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  5
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND [illegible]
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Versio[illegible]
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/390,517A
;      FILING DATE:  07-APR-1993
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.42798
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
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;       TELEFAX:  202-508-9299
;       TELEX:  197430 BBMB UT
;     INFORMATION FOR SEQ ID NO:  2:
;       SEQUENCE CHARACTERISTICS:
;         LENGTH:  2372 base pairs
;         TYPE:  nucleic acid
;         STRANDEDNESS:  double
;         TOPOLOGY:  linear
;       MOLECULE TYPE:  cDNA
;       HYPOTHETICAL:  NO
;       ANTI-SENSE:  NO
;       ORIGINAL SOURCE:
;         ORGANISM:  Homo sapiens
;         CELL LINE:  CaCo-2
;       POSITION IN GENOME:
;         MAP POSITION:  12q12-14
;       FEATURE:
;         NAME/KEY:  CDS
;         LOCATION:  312..1784
US-08-390-517A-2


  Query Match             100.0%;  Score 20;  DB 1;  Length 2372;
  Best Local Similarity   90.0%;  Pred. No. 0.24;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
          :||||||||||||||:|||
Db    694 TGACACCTGTTCTCACTCAC 675


RESULT  14
US-08-390-515A-2/c
; Sequence 2, Application US/08390515A
; Patent No. 5756455
;  GENERAL INFORMATION:
;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN MDM2 GENE IN
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  9
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BECKETT
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/390,515A
;      FILING DATE:  07-APR-1993
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.42798
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
;      CELL LINE:  CaCo-2
;    POSITION IN GENOME:
;      MAP POSITION:  12q12-14
;    FEATURE:
;      NAME/KEY:  CDS
;      LOCATION:  312..1784
US-08-390-515A-2


  Query Match             100.0%;  Score 20;  DB [illegible];  Length 2372;
  Best Local Similarity   90.0%;  Pred. No. [illegible];
  Matches   18;  Conservative    2;  Mismatches [illegible];  Indels    0;  Gaps    0;

Qy      1 ugacacctgttctcacucac 20
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Db    694 TGACACCTGTTCTCACTCAC 675


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US-08-801-718-2/c
; Sequence 2, Application US/08801718
; Patent No. 5858976
;  GENERAL INFORMATION:
;    APPLICANT:  BURRELL, MARILEE
;    APPLICANT:  HILL, DAVID E.
;    APPLICANT:  KINZLER, KENNETH W.
;    APPLICANT:  VOGELSTEIN, BERT
;    TITLE OF INVENTION:  AMPLIFICATION OF HUMAN [illegible]
;    TITLE OF INVENTION:  HUMAN TUMORS
;    NUMBER OF SEQUENCES:  9
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  BANNER, BIRCH, MCKIE AND BE[illegible]
;      STREET:  1001 G STREET, N.W.
;      CITY:  WASHINGTON
;      STATE:  D.C.
;      COUNTRY:  USA
;      ZIP:  20001
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Vers[illegible]
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/801,718
;      FILING DATE:  14-FEB-1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/390,515
;      FILING DATE:  07-APR-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  KAGAN, SARAH A.
;      REGISTRATION NUMBER:  32,141
;      REFERENCE/DOCKET NUMBER:  01107.42798
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  202-508-9100
;      TELEFAX:  202-508-9299
;      TELEX:  197430 BBMB UT
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  2372 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  NO
;    ORIGINAL SOURCE:
;      ORGANISM:  Homo sapiens
```

; CELL LINE: CaCo-2
; POSITION IN GENOME:
; MAP POSITION: 12q12-14
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 312..1784
US-08-801-718-2

Query Match 100.0%; Score 20; DB 2; Length 2372;
Best Local Similarity 90.0%; Pred. No. 0.24;
Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

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Db     694 TGACACCTGTTCTCACTCAC 675
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Search completed: May 31, 2002, 22:44:57
Job time: 4250 sec

GenCore version 4.5

OM nucleic - nucleic search, using sw model

Run on: May 31, 2002, 22:09:08 ; Search time 211.91 Seconds
(without alignments)
162.042 Million cell updates/sec

Title: US-09-708-786-1
Perfect score: 20
Sequence: 1 ugacacctgttctcacucac 20

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 1736436 seqs, 858457221 residues

Total number of hits satisfying chosen parameters: 3472872

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	20	100.0	20	20	AAX35128	Antisense oligonuc
	2	20	100.0	20	20	AAX35139	Antisense oligonuc
c	3	20	100.0	20	20	AAX35106	Antisense oligonuc
	4	20	100.0	20	21	AAA97654	Human MDM2-targett
	5	20	100.0	20	21	AAA97655	Human MDM2-targett
	6	20	100.0	20	21	AAA97656	Human MDM2-targett
	7	20	100.0	20	21	AAA97657	Human MDM2-targett
	8	20	100.0	20	21	AAA97665	Human MDM2 PCR pri
	9	20	100.0	20	22	AAH21705	MDM-2 phosphorothi
c	10	20	100.0	28	21	AAA97658	Human MDM2 gene ta
c	11	20	100.0	40	21	AAA97659	Human MDM2 40mer P
	12	20	100.0	73	20	AAX35141	Nucleotide sequenc
c	13	20	100.0	652	21	AAA75042	cDNA encoding a hu
c	14	20	100.0	681	16	AAQ87262	Human double minut
c	15	20	100.0	681	16	AAQ92516	Human double minut
c	16	20	100.0	852	16	AAQ87261	Human double minut
c	17	20	100.0	852	16	AAQ92515	Human double minut
c	18	20	100.0	1302	16	AAQ87263	Human double minut
c	19	20	100.0	1302	16	AAQ92517	Human double minut
c	20	20	100.0	1476	18	AAT61637	Murine double minu
c	21	20	100.0	1476	22	AAC84596	Human MDM2 protein
c	22	20	100.0	2372	14	AAQ49851	Human MDM2 gene.
c	23	20	100.0	2372	16	AAQ94589	Human MDM2 gene.
c	24	20	100.0	2372	17	AAT45151	Human MDM-2 gene c
c	25	20	100.0	2372	18	AAT66410	Human MDM2 coding
c	26	20	100.0	2372	18	AAT62065	Human MDM2 cDNA.
c	27	20	100.0	2372	19	AAV28876	Human MDM2 gene.
c	28	20	100.0	2372	19	AAV20549	Human MDM2 encodin
c	29	20	100.0	2372	19	AAV04836	cDNA sequence of h
c	30	20	100.0	2372	19	AAV03607	cDNA sequence of
c	31	20	100.0	2372	20	AAZ37471	Human sarcoma p5
c	32	20	100.0	2372	20	AAX35093	Nucleotide sequenc
c	33	20	100.0	2372	20	AAX03947	Human MDM2 encodin
c	34	20	100.0	2372	21	AAA29389	MDM2 oncoprotein c
c	35	20	100.0	2372	22	AAS29240	Human mdm2 cDNA se
c	36	20	100.0	2372	22	AAD07530	Human p-53 associa
c	37	20	100.0	2372	22	AAF80625	Human mdm2 cDNA.
c	38	20	100.0	2393	23	AAS94144	DNA encoding novel
	39	20	100.0	3190	22	AAK51460	Human polynucleoti
	40	19	95.0	20	21	AAA97667	Human MDM2 PCR pri
	41	19	95.0	20	21	AAA97668	Human MDM2 PCR pri
	42	18	90.0	20	21	AAA97666	Human MDM2 PCR pri
	43	17	85.0	20	21	AAA97669	Human MDM2 PCR pri
	44	17	85.0	843	21	AAC61493	Sequence of VP1 re
	45	16.8	84.0	20	20	AAX35117	Control oligonucle

ALIGNMENTS

RESULT 1
AAX35128
ID AAX35128 standard; DNA; 20 BP.
XX
AC AAX35128;
XX
DT 01-JUL-1999 (first entry)
XX
DE Antisense oligonucleotide AS5-2 directed a... ...coding RNA.
XX
KW MDM2 protein; antisense oligonucleotide; a... ...r suppressor;
KW inhibition; tumour growth; DNA-damaging ag... ...in; ss.
XX
OS Synthetic.
XX
PN WO9910486-A2.
XX
PD 04-MAR-1999.
XX
PF 18-AUG-1998; 98WO-US17147.
XX
PR 06-MAY-1998; 98US-0073567.
PR 22-AUG-1997; 97US-0916384.
XX
PA (HYBR-) HYBRIDON INC.
XX
PI Agrawal S, Chen J, Zhang R;
XX
DR WPI; 1999-254219/21.
XX
PT New MDM2-specific antisense oligonucleotid...
XX

PRIOR ART 102

PS Claim 10; Page 10; 59pp; English.
XX
CC The present sequence represents an antisense oligonucleotide that
CC inhibits MDM2 protein expression. The antisense oligonucleotides can
CC be used to activate a tumour suppressor. The antisense oligonucleotides
CC are used to inhibit tumour growth in a mammal, including a human,
CC particularly in conjunction with a DNA-damaging agent such as
CC camptothecin.
XX
SQ Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 other;

Query Match 100.0%; Score 20; DB 20; Length 20;
Best Local Similarity 90.0%; Pred. No. 1.1;
Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
:|||||||||||||||:|||
Db 1 tgacacctgttctcactcac 20

RESULT 2
AAX35139
ID AAX35139 standard; DNA; 20 BP.
XX
AC AAX35139;
XX
DT 01-JUL-1999 (first entry)
XX
DE Antisense oligonucleotide AS5-2H directed against MDM2 encoding RNA.
XX
KW MDM2 protein; antisense oligonucleotide; activate; tumour suppressor;
KW inhibition; tumour growth; DNA-damaging agent; camptothecin;
KW DNA/RNA hybrid; ss.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT misc_RNA 1
FT /*tag= a
FT misc_RNA 17
FT /*tag= b
XX
PN WO9910486-A2.
XX
PD 04-MAR-1999.
XX
PF 18-AUG-1998; 98WO-US17147.
XX
PR 06-MAY-1998; 98US-0073567.
PR 22-AUG-1997; 97US-0916384.
XX
PA (HYBR-) HYBRIDON INC.
XX
PI Agrawal S, Chen J, Zhang R;
XX
DR WPI; 1999-254219/21.
XX
PT New MDM2-specific antisense oligonucleotides
XX
PS Example 15; Page 30; 59pp; English.
XX
CC The present sequence represents an antisense oligonucleotide that
CC inhibits MDM2 protein expression. The antisense oligonucleotides can
CC be used to activate a tumour suppressor. The antisense oligonucleotides
CC are used to inhibit tumour growth in a mammal, including a human,
CC particularly in conjunction with a DNA-damaging agent such as
CC camptothecin.
XX
SQ Sequence 20 BP; 4 A; 8 C; 2 G; 4 T; 2 U; 0 other;

Query Match 100.0%; Score 20; DB 20; Length 20;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
||||||||||||||||||||
Db 1 ugacacctgttctcacucac 20

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AAX35106/c
ID AAX35106 standard; DNA; 20 BP.
XX
AC AAX35106;
XX
DT 01-JUL-1999 (first entry)
XX
DE Antisense oligonucleotide AS5-2 directed ag[illegible] encoding RNA.
XX
KW MDM2 protein; antisense oligonucleotide; a[illegible] suppressor;
KW inhibition; tumour growth; DNA-damaging ag[illegible]thecin; ss.
XX
OS Synthetic.
XX
PN WO9910486-A2.
XX
PD 04-MAR-1999.
XX
PF 18-AUG-1998; 98WO-US17147.
XX
PR 06-MAY-1998; 98US-0073567.
PR 22-AUG-1997; 97US-0916384.
XX
PA (HYBR-) HYBRIDON INC.
XX
PI Agrawal S, Chen J, Zhang R;
XX
DR WPI; 1999-254219/21.
XX
PT New MDM2-specific antisense oligonucleotides
XX
PS Claim 2; Page 10; 59pp; English.
XX
CC The present sequence represents an antisense [illegible]ide that
CC inhibits MDM2 protein expression. The antis[illegible]nucleotides can
CC be used to activate a tumour suppressor. Th[illegible]oligonucleotides
CC are used to inhibit tumour growth in a mam[illegible]g a human,
CC particularly in conjunction with a DNA-dam[illegible]such as
CC camptothecin.
XX
SQ Sequence 20 BP; 6 A; 2 C; 8 G; 4 T; 0 ot[illegible]

Query Match 100.0%; Score 20; DB [illegible] 20;
Best Local Similarity 90.0%; Pred. No. [illegible]
Matches 18; Conservative 2; Mismatches [illegible] 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
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Db 20 TGACACCTGTTCTCACTCAC 1

RESULT 4
AAA97654
ID AAA97654 standard; DNA; 20 BP.
XX
AC AAA97654;
XX
DT 15-FEB-2001 (first entry)
XX
DE Human MDM2-targetted pseudocyclic oligo[illegible]
XX
KW Pseudocyclic oligonucleotide; functiona[illegible]ive segment;
KW nucleic acid detection; mRNA cleavage; art[illegible]

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KW   nucleic acid amplification; human MDM2 gene; PCO; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   20
FT                   /*tag=  a
FT                   /note= "Linked via a 3'-3' linkage to 5'-GTGTCA-3'"
XX
PN   WO200058330-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08826.
XX
PR   31-MAR-1999;   99US-0127138.
PR   05-JAN-2000; 2000US-0174642.
XX
PA   (HYBR-) HYBRIDON INC.
XX
PI   Agrawal S,  Kandimalla ER;
XX
DR   WPI; 2000-672550/65.
XX
PT   New pseudo cyclic oligonucleobases comprising a functional segment, a
PT   protective segment and a linker segment, useful e.g. in diagnostics -
XX
PS   Example 9; Page 25; 58pp; English.
XX
CC   The invention relates to novel pseudocyclic oligonucleotides (PCOs)
CC   comprising a functional segment, a protective segment and a linker
CC   segment. The protective segment is complementary to a portion of
CC   the functional segment, and is linked to the functional segment either
CC   by a direct 3'-3' or 5'-5' linkage, a linker oligonucleotide segment or
CC   a chemical moiety. PCOs can be used for the same purposes as their
CC   constituent functional segment oligonucleotide, for example, as probes
CC   or antisense oligonucleotides. PCOs can be used in solution phase
CC   or in solid phase, e.g., attached to a biochip or magnetic beads for
CC   high-throughput nucleic acid screening and solid phase PCR.
CC   PCOs are particularly useful for cleaving an mRNA molecule by
CC   contacting the mRNA with a PCO in the presence of an RNase H under
CC   conditions that permit hybridisation of the functional segment to
CC   at least a portion of the RNase H and subsequent cleavage of the mRNA,
CC   where the functional segment of the oligonucleotide is complementary to
CC   at least a portion of the mRNA. PCOs are also useful for detecting a
CC   target oligonucleotide, and for amplifying a target nucleic acid,
CC   using a PCO as a primer and/or as a primer/probe, where the functional
CC   sequence is complementary to the target nucleic acid to be amplified.
CC   The oligonucleotides can be used therapeutically to inhibit gene
CC   expression, e.g., to inhibit endogenous oncogenes in the treatment
CC   of cancer. PCOs are more stable than conventional antisense
CC   oligonucleotides because of the presence of 3'-3' and 5'-5' linkages
CC   and the formation of intramolecular pseudo-cyclic structures. In
CC   studies in mice, PCOs have higher in vivo stability than
CC   oligodeoxynucleotide phosphorothioates, while having similar
CC   pharmacokinetic and tissue distribution profiles. The present
CC   sequence represents a pseudocyclic oligonucleotide targetted to the
CC   human MDM2 gene used in an exemplification of the invention.
XX
SQ   Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 other;
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  Query Match             100.0%;  Score 20;  DB 21;  Length 20;
  Best Local Similarity    90.0%;  Pred. No. 1.1;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

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Db       1 tgacacctgttctcactcac 20
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RESULT 5

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AAA97655
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AC   AAA97655;
XX
DT   15-FEB-2001  (first entry)
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DE   Human MDM2-targetted pseudocyclic oligo
XX
KW   Pseudocyclic oligonucleotide; functional                    ve segment;
KW   nucleic acid detection; mRNA cleavage; an
KW   nucleic acid amplification; human MDM2
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   20
FT                   /*tag=  a
FT                   /note= "Linked via a 3'                    AGGTGTCA-3'"
XX
PN   WO200058330-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08826.
XX
PR   31-MAR-1999;   99US-0127138.
PR   05-JAN-2000; 2000US-0174642.
XX
PA   (HYBR-) HYBRIDON INC.
XX
PI   Agrawal S,  Kandimalla ER;
XX
DR   WPI; 2000-672550/65.
XX
PT   New pseudo cyclic oligonucleobases comprisi                  nal segment, a
PT   protective segment and a linker segment, us                  diagnostics -
XX
PS   Example 9; Page 25; 58pp; English.
XX
CC   The invention relates to novel pseudocycl                    ides (PCOs)
CC   comprising a functional segment, a protec                     a linker
CC   segment. The protective segment is comple                    ortion of
CC   the functional segment, and is linked t                     segment either
CC   by a direct 3'-3' or 5'-5' linkage, a link                   ide segment or
CC   a chemical moiety. PCOs can be used for the                  s as their
CC   constituent functional segment oligonucleo                   ample, as probes
CC   or antisense oligonucleotides. PCOs can be                   ution phase
CC   or in solid phase, e.g., attached to a bioch                 agnetic beads for
CC   high-throughput nucleic acid screening and s                  PCR.
CC   PCOs are particularly useful for cleaving an                 ecule by
CC   contacting the mRNA with a PCO in the presen                 Nase H under
CC   conditions that permit hybridisation of the                   segment to
CC   at least a portion of the RNase H and subse                   eavage of the mRNA,
CC   where the functional segment of the oligon                    is complementary to
CC   at least a portion of the mRNA. PCOs are a                    for detecting a
CC   target oligonucleotide, and for amplifying                    nucleic acid,
CC   using a PCO as a primer and/or as a primer/                   re the functional
CC   sequence is complementary to the target nuc                   to be amplified.
CC   The oligonucleotides can be used therapeuti                   inhibit gene
CC   expression, e.g., to inhibit endogenous onc                    the treatment
CC   of cancer. PCOs are more stable than conve                     sense
CC   oligonucleotides because of the presence of                   5'-5' linkages
CC   and the formation of intramolecular pseudo                    ctures. In
CC   studies in mice, PCOs have higher in vivo st                  han
CC   oligodeoxynucleotide phosphorothioates, whi                   similar
CC   pharmacokinetic and tissue distribution pr                    present
CC   sequence represents a pseudocyclic oligonu                    rgetted to the
CC   human MDM2 gene used in an exemplification o                  tion.
XX
SQ   Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 oth
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  Query Match             100.0%;  Score 20;  DB 21;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 1.1;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||:|||
Db       1 tgacacctgttctcactcac 20


RESULT   6
AAA97656
ID   AAA97656 standard; DNA; 20 BP.
XX
AC   AAA97656;
XX
DT   15-FEB-2001  (first entry)
XX
DE   Human MDM2-targetted pseudocyclic oligonucleotide 14.
XX
KW   Pseudocyclic oligonucleotide; functional segment; protective segment;
KW   nucleic acid detection; mRNA cleavage; antisense therapy;
KW   nucleic acid amplification; human MDM2 gene; PCO; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /note= "Linked via a 5'-5' linkage to 5'-GTGAGT-3'"
XX
PN   WO200058330-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08826.
XX
PR   31-MAR-1999;   99US-0127138.
PR   05-JAN-2000; 2000US-0174642.
XX
PA   (HYBR-) HYBRIDON INC.
XX
PI   Agrawal S,  Kandimalla ER;
XX
DR   WPI; 2000-672550/65.
XX
PT   New pseudo cyclic oligonucleobases comprising a functional segment, a
PT   protective segment and a linker segment, useful e.g. in diagnostics -
XX
PS   Example 9; Page 25; 58pp; English.
XX
CC   The invention relates to novel pseudocyclic oligonucleotides (PCOs)
CC   comprising a functional segment, a protective segment and a linker
CC   segment. The protective segment is complementary to a portion of
CC   the functional segment, and is linked to the functional segment either
CC   by a direct 3'-3' or 5'-5' linkage, a linker oligonucleotide segment or
CC   a chemical moiety. PCOs can be used for the same purposes as their
CC   constituent functional segment oligonucleotide, for example, as probes
CC   or antisense oligonucleotides. PCOs can be used in solution phase
CC   or in solid phase, e.g., attached to a biochip or magnetic beads for
CC   high-throughput nucleic acid screening and solid phase PCR.
CC   PCOs are particularly useful for cleaving an mRNA molecule by
CC   contacting the mRNA with a PCO in the presence of an RNase H under
CC   conditions that permit hybridisation of the functional segment to
CC   at least a portion of the RNase H and subsequent cleavage of the mRNA,
CC   where the functional segment of the oligonucleotide is complementary to
CC   at least a portion of the mRNA. PCOs are also useful for detecting a
CC   target oligonucleotide, and for amplifying a target nucleic acid,
CC   using a PCO as a primer and/or as a primer/probe, where the functional
CC   sequence is complementary to the target nucleic acid to be amplified.
CC   The oligonucleotides can be used therapeutically to inhibit gene
CC   expression, e.g., to inhibit endogenous oncogenes in the treatment
CC   of cancer. PCOs are more stable than conventional antisense
CC   oligonucleotides because of the presence of 3'-3' and 5'-5' linkages
CC   and the formation of intramolecular pseudo-cyclic structures. In
CC   studies in mice, PCOs have higher in vivo stability than
CC   oligodeoxynucleotide phosphorothioates, while having similar
CC   pharmacokinetic and tissue distribution properties. The present
CC   sequence represents a pseudocyclic oligonucleotide targetted to the
CC   human MDM2 gene used in an exemplification of the invention.
XX
SQ   Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 other;

  Query Match             100.0%;  Score 20;  DB 21;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 1.1;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||:|||
Db       1 tgacacctgttctcactcac 20


RESULT   7
AAA97657
ID   AAA97657 standard; DNA; 20 BP.
XX
AC   AAA97657;
XX
DT   15-FEB-2001  (first entry)
XX
DE   Human MDM2-targetted pseudocyclic oligo
XX
KW   Pseudocyclic oligonucleotide; functional segment; protective segment;
KW   nucleic acid detection; mRNA cleavage; antisense therapy;
KW   nucleic acid amplification; human MDM2 gene; PCO; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /note= "Linked via a 5'-5' linkage to 5'-GTGAGTGA-3'"
XX
PN   WO200058330-A2.
XX
PD   05-OCT-2000.
XX
PF   31-MAR-2000; 2000WO-US08826.
XX
PR   31-MAR-1999;   99US-0127138.
PR   05-JAN-2000; 2000US-0174642.
XX
PA   (HYBR-) HYBRIDON INC.
XX
PI   Agrawal S,  Kandimalla ER;
XX
DR   WPI; 2000-672550/65.
XX
PT   New pseudo cyclic oligonucleobases comprising a functional segment, a
PT   protective segment and a linker segment, useful e.g. in diagnostics -
XX
PS   Example 9; Page 25; 58pp; English.
XX
CC   The invention relates to novel pseudocyclic oligonucleotides (PCOs)
CC   comprising a functional segment, a protective segment and a linker
CC   segment. The protective segment is complementary to a portion of
CC   the functional segment, and is linked to the functional segment either
CC   by a direct 3'-3' or 5'-5' linkage, a linker oligonucleotide segment or
CC   a chemical moiety. PCOs can be used for the same purposes as their
CC   constituent functional segment oligonucleotide, for example, as probes
CC   or antisense oligonucleotides. PCOs can be used in solution phase
CC   or in solid phase, e.g., attached to a biochip or magnetic beads for
CC   high-throughput nucleic acid screening and solid phase PCR.
```

CC PCOs are particularly useful for cleaving an mRNA molecule by
CC contacting the mRNA with a PCO in the presence of an RNase H under
CC conditions that permit hybridisation of the functional segment to
CC at least a portion of the RNase H and subsequent cleavage of the mRNA,
CC where the functional segment of the oligonucleotide is complementary to
CC at least a portion of the mRNA. PCOs are also useful for detecting a
CC target oligonucleotide, and for amplifying a target nucleic acid,
CC using a PCO as a primer and/or as a primer/probe, where the functional
CC sequence is complementary to the target nucleic acid to be amplified.
CC The oligonucleotides can be used therapeutically to inhibit gene
CC expression, e.g., to inhibit endogenous oncogenes in the treatment
CC of cancer. PCOs are more stable than conventional antisense
CC oligonucleotides because of the presence of 3'-3' and 5'-5' linkages
CC and the formation of intramolecular pseudo-cyclic structures. In
CC studies in mice, PCOs have higher in vivo stability than
CC oligodeoxynucleotide phosphorothioates, while having similar
CC pharmacokinetic and tissue distribution profiles. The present
CC sequence represents a pseudocyclic oligonucleotide targetted to the
CC human MDM2 gene used in an exemplification of the invention.
XX
SQ Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 other;

Query Match 100.0%; Score 20; DB 21; Length 20;
Best Local Similarity 90.0%; Pred. No. 1.1;
Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
:|||||||||||||||:|||
Db 1 tgacacctgttctcactcac 20

RESULT 8
AAA97665
ID AAA97665 standard; DNA; 20 BP.
XX
AC AAA97665;
XX
DT 15-FEB-2001 (first entry) NOT ART
XX
DE Human MDM2 PCR primer 2.
XX
KW Pseudocyclic oligonucleotide; functional segment; protective segment;
KW nucleic acid detection; mRNA cleavage; antisense therapy; PCO;
KW nucleic acid amplification; human MDM2 gene; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200058330-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08826.
XX
PR 31-MAR-1999; 99US-0127138.
PR 05-JAN-2000; 2000US-0174642.
XX
PA (HYBR-) HYBRIDON INC.
XX
PI Agrawal S, Kandimalla ER;
XX
DR WPI; 2000-672550/65.
XX
PT New pseudo cyclic oligonucleobases comprising a functional segment, a
PT protective segment and a linker segment, useful e.g. in diagnostics -
XX
PS Example 9; Fig 11B; 58pp; English.
XX
CC The invention relates to novel pseudocyclic oligonucleotides (PCOs)
CC comprising a functional segment, a protective segment and a linker
CC segment. The protective segment is complementary to a portion of
CC the functional segment, and is linked to the functional segment either
CC by a direct 3'-3' or 5'-5' linkage, a linker oligonucleotide segment or
CC a chemical moiety. PCOs can be used for [illegible] as their
CC constituent functional segment oligonucleo[illegible] example, as probes
CC or antisense oligonucleotides. PCOs can be [illegible]ction phase
CC or in solid phase, e.g., attached to a bi[illegible]netic beads for
CC high-throughput nucleic acid screening and [illegible] PCR.
CC PCOs are particularly useful for cleaving [illegible]ic by
CC contacting the mRNA with a PCO in the prese[illegible]Nase H under
CC conditions that permit hybridisation of the [illegible] segment to
CC at least a portion of the RNase H and subse[illegible]vage of the mRNA,
CC where the functional segment of the oli[illegible] is complementary to
CC at least a portion of the mRNA. PCOs a[illegible] detecting a
CC target oligonucleotide, and for amplifying [illegible]leic acid,
CC using a PCO as a primer and/or as a primer/[illegible] the functional
CC sequence is complementary to the target nucle[illegible]ic be amplified.
CC The oligonucleotides can be used therap[illegible]hibit gene
CC expression, e.g., to inhibit endogenous onc[illegible] treatment
CC of cancer. PCOs are more stable than conve[illegible]sense
CC oligonucleotides because of the presen[illegible]5'-5' linkages
CC and the formation of intramolecular ps[illegible]tures. In
CC studies in mice, PCOs have higher in vivo s[illegible]
CC oligodeoxynucleotide phosphorothioates. wh[illegible]ilar
CC pharmacokinetic and tissue distribution pro[illegible]resent
CC sequence represents a human MDM2 PCR primer[illegible] exemplification
CC of the invention.
XX
SQ Sequence 20 BP; 4 A; 8 C; 2 G; 6 T; 0 [illegible]

Query Match 100.0%; Score 20; DB [illegible]r 20;
Best Local Similarity 90.0%; Pred. No. 1.[illegible]
Matches 18; Conservative 2; Mismatches [illegible]s 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
:|||||||||||||||:|||
Db 1 tgacacctgttctcactcac 20

RESULT 9
AAH21705
ID AAH21705 standard; DNA; 20 BP.
XX
AC AAH21705;
XX
DT 13-AUG-2001 (first entry) NOT ART
XX
DE MDM-2 phosphorothioate oligonucleotide.
XX
KW Phosphorothioate; MDM-2; HIV-1; gag; par[illegible] tumour;
KW Panc 1 tumour; colon cancer; prodrug; poly[illegible]
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT modified_base 1..20
FT /*tag= a
FT /mod_base= OTHER
FT /note= "phosphorothioate lin[illegible]
FT misc_RNA 1..2
FT /*tag= b
FT /note= "2'-O-methylribonucle[illegible]
FT misc_RNA 17..20
FT /*tag= c
FT /note= "2'-O-methylribonu[illegible]
XX
PN WO200134093-A2.
XX
PD 17-MAY-2001.
XX
PF 08-NOV-2000; 2000WO-US30687.
XX
PR 09-NOV-1999; 99US-0164182.
XX
PA (HYBR-) HYBRIDON INC.

XX
PI Agrawal S;
XX
DR WPI; 2001-300586/31.
XX
PT Potentiating prodrug activity, without producing side effects, involves
PT co-administering a prodrug with a polyanion -
XX
PS Example 1; Page 12; 26pp; English.
XX
CC The present invention describes a method for potentiating prodrug
CC activity, without producing side effects, comprising co-administering
CC the prodrug with a polyanion which is not an oligonucleotide having two
CC 5' and four 3'2'-O-methylribonucleosides with the sequence:
CC 5'-UGACACCTGTTCTACUCAC-3'. Also described are: (1) potentiating the
CC activity of a prodrug without producing side effects, comprising
CC administering a polyanion before the prodrug; and (2) potentiating the
CC activity of a prodrug without producing side effects, comprising co-
CC administering a polyanion and a prodrug in a dosage which would not
CC produce a therapeutic effect in the absence of the polyanion. The
CC methods can be used for potentiating prodrug activity without producing
CC side effects. The potentiating agents maximise the efficacy of the
CC prodrugs, reducing the dosage to be administered to less toxic levels.
CC The present sequence represents a phosphorothioate oligonucleotide
CC complementary to mdm-2, which is used in an example from the present
CC invention for the treatment of colon cancer tumour-bearing mice.
XX
SQ Sequence 20 BP; 4 A; 8 C; 2 G; 4 T; 2 U; 0 other;

Query Match 100.0%; Score 20; DB 22; Length 20;
Best Local Similarity 100.0%; Pred. No. 1.1;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
||||||||||||||||||||
Db 1 ugacacctgttctcacucac 20

RESULT 10
AAA97658/c
ID AAA97658 standard; DNA; 28 BP.
XX
AC AAA97658;
XX
DT 15-FEB-2001 (first entry)
XX
DE Human MDM2 gene target oligonucleotide.
XX
KW Pseudocyclic oligonucleotide; functional segment; protective segment;
KW nucleic acid detection; mRNA cleavage; antisense therapy; PCO;
KW nucleic acid amplification; human MDM2 gene; target oligonucleotide; ss.
XX
OS Homo sapiens.
XX
PN WO200058330-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08826.
XX
PR 31-MAR-1999; 99US-0127138.
PR 05-JAN-2000; 2000US-0174642.
XX
PA (HYBR-) HYBRIDON INC.
XX
PI Agrawal S, Kandimalla ER;
XX
DR WPI; 2000-672550/65.
XX
PT New pseudo cyclic oligonucleobases comprising a functional segment, a
PT protective segment and a linker segment, useful e.g. in diagnostics -
XX
PS Example 9; Page 25; 58pp; English.
XX
CC The invention relates to novel pseudocyclic [illegible] cotides (PCOs)
CC comprising a functional segment, a protec[illegible] and a linker
CC segment. The protective segment is complem[illegible] portion of
CC the functional segment, and is linked to th[illegible] nal segment either
CC by a direct 3'-3' or 5'-5' linkage, a linker [illegible] leotide segment or
CC a chemical moiety. PCOs can be used for the s[illegible] as their
CC constituent functional segment oligonucleo[illegible] ample, as probes
CC or antisense oligonucleotides. PCOs can be s[illegible] ution phase
CC or in solid phase, e.g., attached to a bio[illegible] agnetic beads for
CC high-throughput nucleic acid screening and s[illegible] PCR.
CC PCOs are particularly useful for cleaving an [illegible] ecule by
CC contacting the mRNA with a PCO in the prese[illegible] RNase H under
CC conditions that permit hybridisation of the [illegible] l segment to
CC at least a portion of the RNase H and subs[illegible] vage of the mRNA,
CC where the functional segment of the oligonu[illegible] s complementary to
CC at least a portion of the mRNA. PCOs are a[illegible] for detecting a
CC target oligonucleotide, and for amplifying a [illegible] leic acid,
CC using a PCO as a primer and/or as a primer/p[illegible] the functional
CC sequence is complementary to the target nu[illegible] be amplified.
CC The oligonucleotides can be used therapeu[illegible] bit gene
CC expression, e.g., to inhibit endogenous or[illegible] treatment
CC of cancer. PCOs are more stable than conv[illegible] nse
CC oligonucleotides because of the presence [illegible] '-5' linkages
CC and the formation of intramolecular ps[illegible] ures. In
CC studies in mice, PCOs have higher in vi[illegible]
CC oligodeoxynucleotide phosphorothioates, wi[illegible] similar
CC pharmacokinetic and tissue distribution pro[illegible] esent
CC sequence represents a human MDM2 gene-ta[illegible] otide used in
CC an exemplification of the invention.
XX
SQ Sequence 28 BP; 7 A; 5 C; 8 G; 8 T; 0 oth[illegible]

Query Match 100.0%; Score 20; [illegible] 28;
Best Local Similarity 90.0%; Pred. No. [illegible]
Matches 18; Conservative 2; Mismatches [illegible] 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
:||||||||||||||||:|||
Db 24 TGACACCTGTTCTCACTCAC 5

RESULT 11
AAA97659/c
ID AAA97659 standard; DNA; 40 BP.
XX
AC AAA97659;
XX
DT 15-FEB-2001 (first entry)
XX
DE Human MDM2 40mer PCR template.
XX
KW Pseudocyclic oligonucleotide; functional s[illegible] tive segment;
KW nucleic acid detection; mRNA cleavage; anti[illegible] py; PCO;
KW nucleic acid amplification; human MDM2 gen[illegible] tgonucleotide; ss.
XX
OS Homo sapiens.
XX
PN WO200058330-A2.
XX
PD 05-OCT-2000.
XX
PF 31-MAR-2000; 2000WO-US08826.
XX
PR 31-MAR-1999; 99US-0127138.
PR 05-JAN-2000; 2000US-0174642.
XX
PA (HYBR-) HYBRIDON INC.
XX
PI Agrawal S, Kandimalla ER;
XX

DR WPI; 2000-672550/65.
XX
PT New pseudo cyclic oligonucleobases comprising a functional segment, a
PT protective segment and a linker segment, useful e.g. in diagnostics -
XX
PS Example 9; Page 26; 58pp; English.
XX
CC The invention relates to novel pseudocyclic oligonucleotides (PCOs)
CC comprising a functional segment, a protective segment and a linker
CC segment. The protective segment is complementary to a portion of
CC the functional segment, and is linked to the functional segment either
CC by a direct 3'-3' or 5'-5' linkage, a linker oligonucleotide segment or
CC a chemical moiety. PCOs can be used for the same purposes as their
CC constituent functional segment oligonucleotide, for example, as probes
CC or antisense oligonucleotides. PCOs can be used in solution phase
CC or in solid phase, e.g., attached to a biochip or magnetic beads for
CC high-throughput nucleic acid screening and solid phase PCR.
CC PCOs are particularly useful for cleaving an mRNA molecule by
CC contacting the mRNA with a PCO in the presence of an RNase H under
CC conditions that permit hybridisation of the functional segment to
CC at least a portion of the RNase H and subsequent cleavage of the mRNA,
CC where the functional segment of the oligonucleotide is complementary to
CC at least a portion of the mRNA. PCOs are also useful for detecting a
CC target oligonucleotide, and for amplifying a target nucleic acid,
CC using a PCO as a primer and/or as a primer/probe, where the functional
CC sequence is complementary to the target nucleic acid to be amplified.
CC The oligonucleotides can be used therapeutically to inhibit gene
CC expression, e.g., to inhibit endogenous oncogenes in the treatment
CC of cancer. PCOs are more stable than conventional antisense
CC oligonucleotides because of the presence of 3'-3' and 5'-5' linkages
CC and the formation of intramolecular pseudo-cyclic structures. In
CC studies in mice, PCOs have higher in vivo stability than
CC oligodeoxynucleotide phosphorothioates, while having similar
CC pharmacokinetic and tissue distribution profiles. The present
CC sequence represents a human MDM2 gene-derived oligonucleotide used in
CC an exemplification of the invention.
XX
SQ Sequence 40 BP; 10 A; 9 C; 12 G; 9 T; 0 other;

Query Match 100.0%; Score 20; DB 21; Length 40;
Best Local Similarity 90.0%; Pred. No. 1.2;
Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
:|||||||||||||||:|||
Db 36 TGACACCTGTTCTCACTCAC 17

RESULT 12
AAX35141
ID AAX35141 standard; DNA; 73 BP.
XX
AC AAX35141;
XX
DT 01-JUL-1999 (first entry) AKT
XX
DE Nucleotide sequence SEQ ID 49.
XX
KW MDM2 protein; antisense oligonucleotide; activate; tumour suppressor;
KW inhibition; tumour growth; DNA-damaging agent; camptothecin;
KW DNA/RNA hybrid; ss.
XX
OS Synthetic.
XX
PN WO9910486-A2.
XX
PD 04-MAR-1999.
XX
PF 18-AUG-1998; 98WO-US17147.
XX
PR 06-MAY-1998; 98US-0073567.
PR 22-AUG-1997; 97US-0916384.
XX
PA (HYBR-) HYBRIDON INC.
XX
PI Agrawal S, Chen J, Zhang R;
XX
DR WPI; 1999-254219/21.
XX
PT New MDM2-specific antisense oligonucleotide
XX
PS Disclosure; Page 57; 59pp; English.
XX
CC The specification describes antisense [illegible] that
CC inhibits MDM2 protein expression. The [illegible] otides can
CC be used to activate a tumour suppressor [illegible] gonucleotides
CC are used to inhibit tumour growth in a [illegible] human,
CC particularly in conjunction with a DNA-[illegible] as
CC camptothecin. The present sequence appears [illegible] cation.
XX
SQ Sequence 73 BP; 17 A; 23 C; 11 G; 22 T; 0

Query Match 100.0%; Score 20; [illegible]3;
Best Local Similarity 90.0%; Pred. No. [illegible]
Matches 18; Conservative 2; Mismatches [illegible] 0; Gaps 0;

Qy 1 ugacacctgttctcacucac 20
:|||||||||||||||:|||
Db 44 tgacacctgttctcactcac 63

RESULT 13
AAA75042/c
ID AAA75042 standard; cDNA; 652 BP.
XX
AC AAA75042;
XX
DT 02-JAN-2001 (first entry)
XX
DE cDNA encoding a human MDMIP-binding MDM[illegible] [illegible]ment.
XX
KW Human; MDM2 interacting polypeptide; MDMIP[illegible] [illegible]le progression;
KW cell differentiation; cancer; sarcoma; [illegible] cell carcinoma;
KW breast cancer; astrocytoma; leukemia; [illegible] nesis;
KW gene therapy; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..652
FT /*tag= a
FT /transl_except= (pos: 172.[illegible] m)
FT /note= "partial sequence"
XX
PN WO200050590-A1.
XX
PD 31-AUG-2000.
XX
PF 23-FEB-2000; 2000WO-US04582.
XX
PR 23-FEB-1999; 99US-0121192.
PR 03-MAR-1999; 99US-0122643.
PR 22-FEB-2000; 2000US-0122643.
XX
PA (CURA-) CURAGEN CORP.
XX
PI Nandabalan K, Yang M, Schulz VP;
XX
DR WPI; 2000-558398/51.
DR P-PSDB; AAB08846.
XX
PT Novel MDM2 interacting protein useful for [illegible] preventing
PT disorders involving aberrant levels of MDM2 [illegible] interacting
PT proteins, comprises a specific amino acid [illegible]

```
XX
PS   Disclosure; Fig 2A; 78pp; English.
XX
CC   The present sequence encodes a fragment of a human MDM2 polypeptide,
CC   which binds to a human MDM2 interacting polypeptide (MDMIP). The
CC   protein fragment was used as bait in a yeast two hybrid system to
CC   identify MDMIP. The MDMIP polypeptide is useful for detecting and
CC   removing MDM2 polypeptides in a biological sample by forming MDM2-MDMIP
CC   complexes. MDMIP and MDM2 are useful to identify compounds or other
CC   agents which modulate the activity of MDM2 and/or MDMIP-mediated
CC   processes. Agents that modulate the function of MDMIP/MDM2 complexes
CC   are useful for treating and preventing a disease or disorder involving
CC   aberrant levels of MDM2 or MDMIP. MDMIP is also useful for treating
CC   diseases caused by aberrant levels of expression of MDM2 genes, such as
CC   disorders of cell cycle progression, cell differentiation, and
CC   transcriptional control, including cancers such as human sarcoma,
CC   glioma, squamous cell carcinoma, breast cancer, astrocytoma, leukemia
CC   and lymphoma, and tumorigenesis. MDMIP and MDM2 nucleic acids are useful
CC   in gene therapy.
XX
SQ   Sequence 652 BP; 212 A; 116 C; 145 G; 179 T; 0 other;


  Query Match             100.0%;  Score 20;  DB 21;  Length 652;
  Best Local Similarity   90.0%;  Pred. No. 1.7;
  Matches   18;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||||:|||
Db     383 TGACACCTGTTCTCACTCAC 364


RESULT  14
AAQ87262/c
ID   AAQ87262 standard; DNA; 681 BP.
XX
AC   AAQ87262;
XX
DT   25-JAN-1996  (first entry)
XX
DE   Human double minute gene 2 (hdm-2) fragment 2.
XX
KW   Human double minute gene 2; hdm-2; antibody binding region;
KW   antigen; cancer; sarcoma; rhabdomyosarcoma; diagnosis; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             1..681
FT                   /*tag=  a
FT                   /label= Fragment_2
FT                   /note= "encodes amino acids 58-284 of hdm-2,
FT                          i.e. this region does not contain the
FT                          start or stop codons"
XX
PN   DE4345249-A1.
XX
PD   24-MAY-1995.
XX
PF   19-NOV-1993;   93DE-4339533.
XX
PR   19-NOV-1993;   93DE-4339533.
PR   19-NOV-1993;   93DE-4345249.
XX
PA   (DEKR-) DEUT KREBSFORSCHUNGSZENTRUM.
XX
PI   Frey M,  Klein R,  Martens R,  Zentgraf H;
XX
DR   WPI; 1995-195167/26.
DR   P-PSDB; AAR75398.
XX
PT   New hdm-2 fragments contg. antibody binding region - used to detect
PT   specific antibodies for diagnosis of cancers, also new DNA sequences
PT   encoding them
XX
PS   Claim 4; Fig 2; 11pp; German.
XX
CC   DNA fragments coding for amino acids 1-284 [illegible] 58-491 of the
CC   hdm-2 (human double minute 2) gene product [illegible]. The overlapping
CC   protein fragments contain binding regions [illegible] specific
CC   antibodies and are useful for identifying s[illegible]odies. The
CC   presence of anti-hdm-2 antibodies is diagnos[illegible] certain forms of
CC   cancer, e.g. rhabdomyosarcoma.
XX
SQ   Sequence 681 BP; 220 A; 109 C; 167 G; 185 [illegible]


  Query Match             100.0%;  Score 20;  [illegible]ch 681;
  Best Local Similarity   90.0%;  Pred. No. 1.7;
  Matches   18;  Conservative    2;  Mismatches [illegible]rs    0;  Gaps    0;

Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||||:|||
Db     212 TGACACCTGTTCTCACTCAC 193


RESULT  15
AAQ92516/c
ID   AAQ92516 standard; DNA; 681 BP.
XX
AC   AAQ92516;
XX
DT   02-FEB-1996  (first entry)
XX
DE   Human double minute gene 2 (hdm-2) fragment [illegible]
XX
KW   Human double minute gene 2; hdm-2; antibody [illegible] region;
KW   antigen; cancer; sarcoma; rhabdomyosarcoma; [illegible] immunoassay; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             1..681
FT                   /*tag=  a
FT                   /label= Fragment_2
FT                   /note= "encodes amino acids [illegible] hdm-2,
FT                          i.e. this region do[illegible]ain the
FT                          start or stop codo[illegible]
XX
PN   DE4339533-A1.
XX
PD   14-JUN-1995.
XX
PF   19-NOV-1993;   93DE-4339533.
XX
PR   19-NOV-1993;   93DE-4339533.
XX
PA   (DEKR-) DEUT KREBSFORSCHUNGSZENTRUM.
XX
PI   Frey M,  Klein R,  Martens R,  Zentgraf [illegible]
XX
DR   WPI; 1995-216248/29.
DR   P-PSDB; AAR75495.
XX
PT   Detection of human double minute gene 2 (hdm-2) [illegible]ies - by
PT   incubation with new hdm-2 or antibody-bindi[illegible] fragments;
PT   useful in the detection of specific cancers.
XX
PS   Claim 13; Fig 2; 12pp; German.
XX
CC   DNA fragments coding for amino acids 1-284, [illegible] 58-491 of the
CC   hdm-2 (human double minute 2) gene product [illegible]. The overlapping
CC   protein fragments contain binding regions for [illegible]-specific
CC   antibodies and are useful for identifying su[illegible]ies using a
CC   claimed immunoassay method. The presence o[illegible] antibodies is
CC   diagnostic of certain forms of cancer, e.[illegible] sarcoma.
```

XX
SQ Sequence 681 BP; 220 A; 109 C; 167 G; 185 T; 0 other;

Query Match 100.0%; Score 20; DB 16; Length 681;
Best Local Similarity 90.0%; Pred. No. 1.7;
Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

```
Qy       1 ugacacctgttctcacucac 20
           :||||||||||||||:|||
Db     212 TGACACCTGTTCTCACTCAC 193
```

Search completed: May 31, 2002, 22:48:50
Job time: 2382 sec